

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: ROUND POND	Lake Area (ha):	40.47
Town: BARRINGTON	Maximum depth (m):	6.2
County: Strafford	Mean depth (m):	2.8
River Basin: Coastal	Volume (m ³):	1132000
Latitude: 43°16'34" N	Relative depth:	0.9
Longitude: 71°02'41" W	Shore configuration:	1.52
Elevation (ft): 391	Areal water load (m/yr):	2.06
Shore length (m): 3400	Flushing rate (yr ⁻¹):	0.70
Watershed area (ha): 176.1	P retention coeff.:	0.81
% watershed ponded: 0.0	Lake type:	natural w/dam

BIOLOGICAL:

27 July 1999

DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 75%
	#2	TABELLARIA 10%
	#3	MALLOMONAS 5%
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		2.61
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA 57%
	#2	KELICOTTIA 15%
	#3	
ROTIFERS/LITER		117
MICROCRUSTACEA/LITER		36
ZOOPLANKTON ABUNDANCE (#/L)		154
VASCULAR PLANT ABUNDANCE		Scat/Common
SECCHI DISK TRANSPARENCY (m)		4.2
BOTTOM DISSOLVED OXYGEN (mg/L)		1.2
BACTERIA (E. coli, #/100 ml)	#1	
	#2	
	#3	

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 4.5
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:

Lake: ROUND POND

Town: BARRINGTON

		27 July 1999			
DEPTH (m)			2.0		4.0
pH (units)			6.0		5.7
A.N.C. (Alkalinity)			1.1		1.2
NITRATE NITROGEN			< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN			0.24		0.22
TOTAL PHOSPHORUS			0.006		0.008
CONDUCTIVITY (μ mhos/cm)			36.7		37.0
APPARENT COLOR (cpu)			11		14
MAGNESIUM			0.54		
CALCIUM			1.7		
SODIUM			3.6		
POTASSIUM			0.50		
CHLORIDE			5		5
SULFATE			4		4
TN : TP			40		28
CALCITE SATURATION INDEX			5.0		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1999

D.O. S.D. PLANT CHL TOTAL CLASS

**	2	2	0	4	Oligo.
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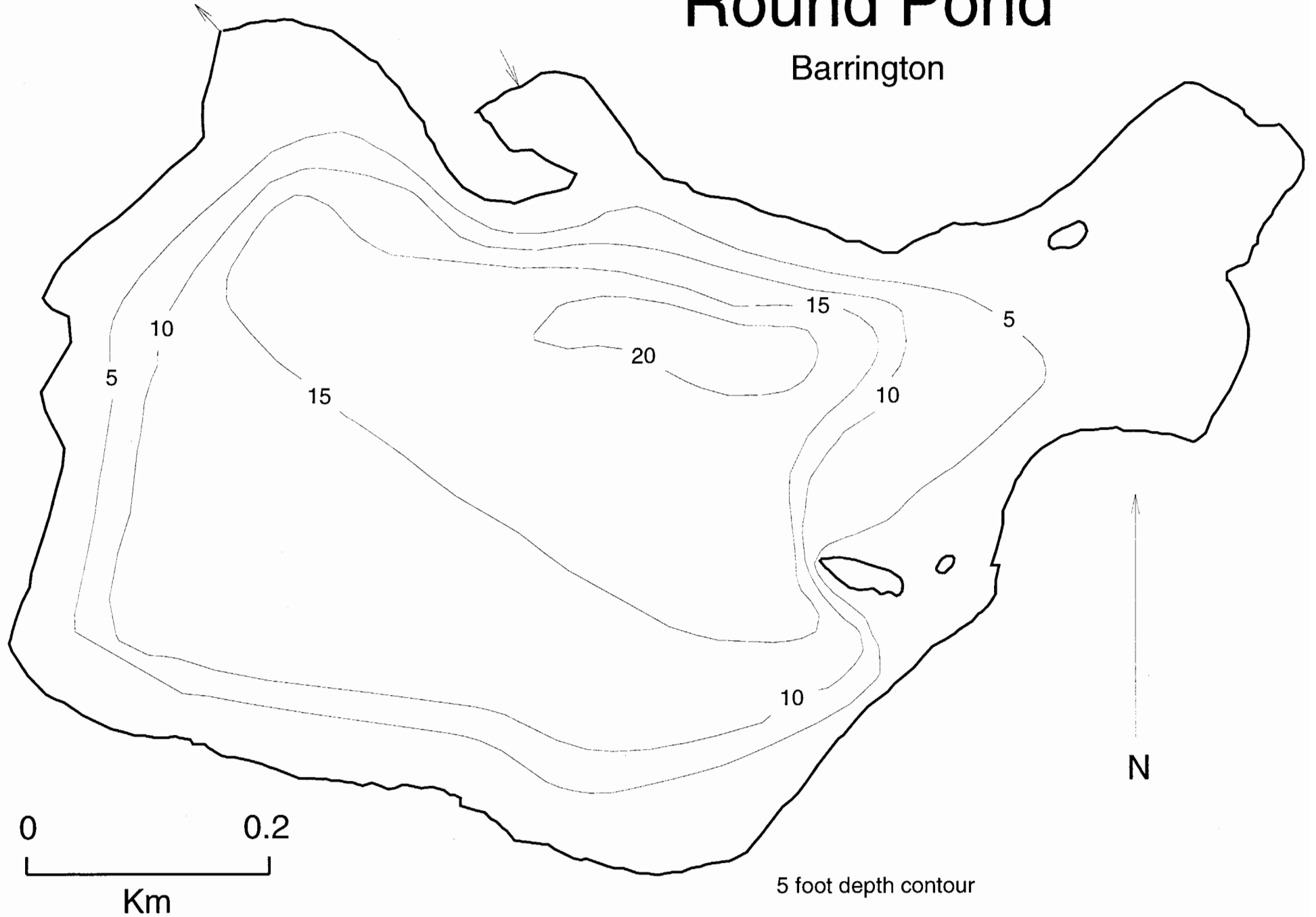
COMMENTS:

1. This is the public water supply for the City of Rochester. Boating, fishing and swimming are prohibited.
2. This is sometimes called Rochester Reservoir, but it is a separate waterbody that flows into Rochester Reservoir (as named on the USGS topographical map).
3. The pond was not sampled in the winter because of thin ice.
4. The pond had two thermal layers, an epilimnion and metalimnion, but no hypolimnion (see discussion on page II-8).

Round Pond

Barrington

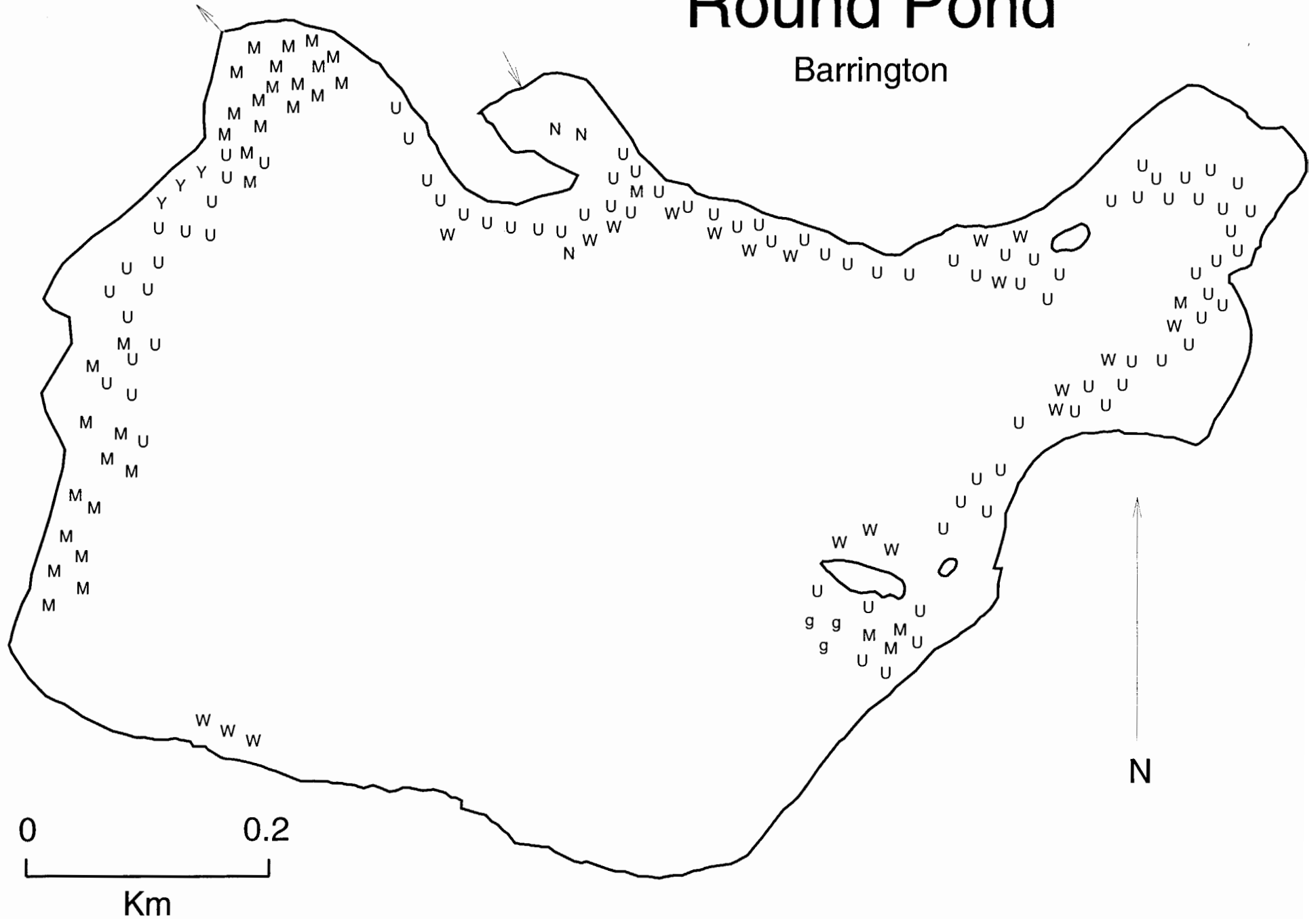
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Round Pond

Barrington



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